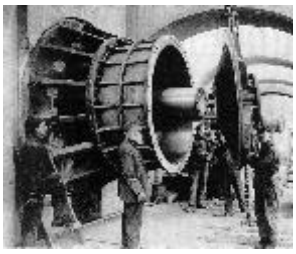
Record of Decision

for

Arrowrock Dam
Outlet Works Rehabilitation
Boise Project, Idaho



Final Environmental Impact Statement

FES-01-12

U.S. Department of the Interior
Bureau of Reclamation
Pacific Northwest Region
Snake River Area Office
Boise, Idaho

April 2001

BUREAU OF RECLAMATION
RECORD OF DECISION
APRIL 2001

Final Environmental Impact Statement
Arrowrock Dam Outlet Works Rehabilitation Project

I. Introduction

This document constitutes the Record of Decision (ROD) of the Department of the Interior, Bureau of Reclamation (Reclamation) Pacific Northwest Region, regarding the alternative selected for replacing 10 eighty-five year old lower Ensign valves on Arrowrock Dam with clamshell gates and certain changes in Boise River reservoir operations to accomplish the work. The Arrowrock Dam Outlet Works Rehabilitation Project is the subject of the Final Environmental Impact Statement (FEIS), filed with the Environmental Protection Agency (EPA) on March 9, 2001 (FES-01-12). EPA's notice of availability was published in the *Federal Register* on March 16, 2001. The FEIS was prepared pursuant to the Council on Environmental Quality Regulations for implementing the procedural requirements of the National Environmental Policy Act (NEPA), Department of Interior policies, and Reclamation's NEPA handbook. The FEIS provides an analysis of the potential impacts to the human environment related to the rehabilitation of the dam outlet works.

II. Reclamation's Decision

Reclamation's decision is to implement the Preferred Alternative (Alternative A) and associated environmental commitments (mitigation measures) as described in the FEIS. Alternative A is also the Environmentally Preferred Alternative. Implementing this alternative will alleviate the continuing maintenance problems for Arrowrock Dam's outlet works and allow operation of the dam to meet all project purposes.

III. The Alternatives Considered

Two action alternatives and a No Action Alternative were evaluated in the FEIS. The action alternatives were developed through engineering and reservoir operation studies to resolve the problems associated with the outlet works, and through public involvement. The facilities to be constructed in the action are identical. They are distinguished by different reservoir operations which would allow construction to occur while still operating the Boise River reservoirs to meet project purposes. Both action alternatives require three construction seasons (years), and only the operation of reservoirs during the third year of the construction period differ.

Both action alternatives consist of replacing the 10 lower Ensign valves located on the upstream side of the dam with clamshell gates to be located on the downstream side of the dam. Associated structures and features include a control house and new gallery entrance for access to the clamshell gates, steel conduit liners, modified trashracks to accept a bulkhead gate, and a bubbler system to maintain an ice-free area of water around the guides of the bulkhead gate. Bellmouths would be mounted on the upstream face of the dam in place of the old Ensign valves and welded to the liners. The installation of the upstream bulkhead gate would permit future inspection and maintenance of the valves without a need to draft Arrowrock Reservoir.

Construction activities and reservoir operations for the first two years of construction would be identical for both action alternatives. During this time, work would occur on the downstream side of Arrowrock Dam from September 15 to March 1. Operation of Arrowrock Reservoir and Lucky Peak Lake would be modified slightly to allow construction but would be within normal operating ranges.

Alternative A (Preferred Alternative) - During the third year of construction, the elevation of Arrowrock Reservoir would be held to 3027 feet from September 15 to March 1 providing the largest

possible residual pool for Arrowrock Reservoir (1,500 acre-feet) while still allowing valve replacement in a dry condition through the use of stoplogs to isolate valves being worked on. Lucky Peak Lake must be held at or below elevation 2962 from October 15 to March 1 in order to allow discharge through the sluice gates, if required.

At elevation 3027, at least six of the middle row of conduits would be operational at all times to pass Arrowrock Reservoir inflow without opening the sluice gates at the base of the dam, which would pass accumulated sediment downstream. However, certain storm events could exceed the discharge capacity of these valves during the construction season, in which case the sluice gates may need to be opened temporarily to pass flows and allow construction to proceed. Mitigation for Alternative A allows flooding of the work area for up to 5 cumulative days before the sluice gates would be operated. As a result, there is a 15 percent chance that the sluice gates would be opened during the third construction season.

Alternative B - Alternative B is identical to Alternative A in facilities and in construction through the second construction season.

Drawdown of Arrowrock Reservoir for the third construction season would be earlier, to a lower level, and for a shorter period than Alternative A. Arrowrock Reservoir would be drawn down to elevation 3007 feet from September 1 to November 7. During this period, Lucky Peak Lake would be held at an elevation no higher than 2962 feet. These elevations would allow work to proceed much more quickly on the upstream side of Arrowrock Dam as all of the middle row outlet structures would be above the water level. The Alternative B trade-off for being able to work more quickly is that Arrowrock Reservoir would have a dead pool of only 160 acre-feet and the sluice gates would be used continuously during the drawdown to pass inflow. Because of the relatively short and early construction season, it is unlikely that potential storm events would exceed the capacity of the sluice gates and flood the work area.

The No Action Alternative - No Action is defined as the most likely future without the proposed action and the effects of the other action alternatives were compared to its effects. The No Action Alternative presented in the FEIS is not the status quo operation scenario of the past 10 years. No Action consists of an aggressive program of repair of all Ensign valves and sluice gates in Arrowrock Dam over the next 15 years and continued inspection and minor maintenance for as long as the outlets are in service. All repairs and inspections of the lower Ensign valves and sluice gates would require deep drafting of Arrowrock Reservoir including frequent use of the sluice gates.

The Environmentally Preferred Alternative - Alternative A provides a much lower level of environmental impact because it significantly reduces the probability of having to use the sluice gates and allows work to proceed with a larger residual pool in Arrowrock Reservoir. This will minimize adverse impacts to water quality, fisheries and threatened species (bull trout and bald eagle).

Alternatives Considered but Not Carried Forward - Reclamation began studying engineering solutions for rehabilitating the Arrowrock Dam outlet works in the 1980's. After completing three value engineering studies, the proposal to replace the lower row of Ensign valves with clamshell gates was developed in 1997.

Because of environmental concerns associated with the proposed deep drawdown of Arrowrock Reservoir that were identified during scoping for the EIS, Reclamation studied alternative means of reservoir operation that would permit construction on the upstream face of the dam while providing a larger pool in Arrowrock Reservoir. Three alternative methods, one using a pressure vessel, one using a steel coffer dam, and one requiring the use of divers for underwater construction were examined. The pressure vessel was eliminated due to exorbitant costs - more than three times the cost of the original construction concept and safety concerns. The coffer dam was determined to be infeasible due to

insufficient space for installation within the trashrack, problems with anchoring and sealing out water, safety and rescue concerns related to confined space and difficult access, and high cost. The use of divers was eliminated due to the concern for diver safety while working near outlets discharging water, reduced discharge capacity needed to improve diver safety, the potential need for an extra year of construction, and high cost.

Reclamation also examined shorter 2-year construction periods, but found that with construction limited to the non-irrigation season, two years would be insufficient.

IV. Decision Factors

Lower Level of Adverse Environmental Impact - Reclamation's decision to implement Alternative A is primarily due to lesser adverse environmental effects during the third year of construction and the ability to mitigate many of these adverse effects compared to Alternative B. The environmental benefits of implementing Alternate A are:

- Water quality (suspended sediment and turbidity) in Arrowrock Reservoir, Lucky Peak Lake, and the lower Boise River would be degraded to a much lesser degree if sluice gates are not used. In the event that sluice gates are required, the duration and corresponding adverse effect would be less than with other alternatives.
- Bull trout that are entrained or transported to Lucky Peak Lake would be assured of adequate water quality there.
- Although habitat for bull trout and other fish in Arrowrock Reservoir would be marginal, it would be much better than Alternative B.
- The loss of prey base for threatened bald eagles would be less.
- Adverse effects to boating at Lucky Peak Lake and floating on the lower Boise River would be less. Economic impacts to recreational concessions at Lucky Peak State Park and Ada County's Barber Park would also be less.
- The risk of not providing a full irrigation water supply following year 3 of construction is only slightly more than Alternative B.
- The economic impact to irrigation spaceholders is only slightly higher than Alternative B.
- Adverse effects to the historic integrity of Arrowrock Dam are the same for each alternative.
- The potential for adverse effects to cultural resources in the Arrowrock pool would be less.
- The potential effects to Indian sacred sites would be no greater than, and potentially less than Alternative B.
- The potential adverse effects to Indian Trust Assets related to fish and wildlife would be less. Tribal hunting and fishing rights would be unaffected.

Cost - Even with the environmental benefits, the estimated construction cost of Alternative A ($15 million) is not significantly higher than Alternative B ($14.6 million). The additional mitigation that would

likely be required for the higher level of impacts under Alternative B would bring the cost even closer to that of Alternative A.

V. Public Response to the FEIS

The *Federal Register* Notice of Availability of the FEIS was published on March 16, 2001. Copies of the FEIS were distributed for public and agency review. Reclamation received one letter of comment on the FEIS. The U.S. Environmental Protection Agency (EPA) provided comments in a letter dated April 17, 2001 (see attached letter). Reclamation also received some feedback on the analysis done for water quality impacts in the FEIS, from the Idaho Department of Environmental Quality (IDEQ) and the City of Boise through informal meetings and discussions.

EPA Letter of April 17, 2001
The EPA identified what it called "deficiencies" in the FEIS, and recommended that Reclamation issue a supplemental EIS to address them. The deficiencies as identified by EPA, along with Reclamation's responses, are as follows:

- **EPA** - "Include a quantitative assessment of suspended solids (with adoption of mitigation measures) accompanied by a narrative interpretation of the modeling results and an explanation of the limits of that modeling effort."

  Reclamation - While Reclamation agrees that it would be most desirable to have a more detailed quantitative analysis of water quality impacts on the lower Boise River, it remains Reclamation's position that the water quality analysis in the FEIS utilized the best available data and modeling to estimate the quantity and transport of sediments associated with potential sluice gate operation at Arrowrock Reservoir during the third year of construction. The preferred alternative was changed in the FEIS to minimize the probability of sluice gate operation from 42% to 15%. In the unlikely event that sluice gates would be used, it would be for the shortest duration possible and only after the worksite has been flooded out for five days.

  The model and analysis suggested by the EPA would generate unfounded numbers which could not be supported because of the lack of adequate data to use in the model. It would be necessary for Reclamation to open all five sluice gates for approximately 24 hours to acquire the data necessary to calibrate and validate the model EPA suggested. It is not advisable for Reclamation to operate the sluice gates because this action in and of itself would adversely impact a threatened species, exceed water quality standards, and likely exceed concentration targets identified in the lower Boise River TMDL. Also, the preliminary analysis provided by the City of Boise for impacts on the lower Boise River TMDL is not valid because the operations of Arrowrock and Lucky Peak reservoirs were not included in the city's analysis. If this analysis were to be completed on the basis of a range of unfounded numbers, Reclamation believes that the results of the analysis would not be substantially different from the level of impacts described in the FEIS, and the mitigation available to minimize those impacts would be similar to that in the FEIS.

- **EPA** - "Update the readers about the additional monitoring and mitigation measures that the Bureau has worked out with the regulatory agencies..."

  Reclamation - Monitoring and mitigation measures will continue to be coordinated with and distributed to the appropriate regulatory agencies. Reclamation has also expended a considerable effort to inform and involve agencies and the general public as to the project purpose, alternatives, impacts, and potential mitigation. This has been done through meetings with various groups, distribution of flyers to many local sporting and recreational establishments, as well as an informational open house held just prior to release of the Draft EIS. These efforts are part of Reclamation's public outreach program. Reclamation's decision to implement the preferred alternative and the Environmental Commitments listed below will be made public through distribution of this ROD to those agencies organizations and individuals that received the FEIS and through publication in the *Federal Register*. Reclamation is committed to keeping agencies and the general public informed about this project throughout the construction phase through continued implementation of the public outreach plan.

- **EPA** - "Describe to a greater extent the environmental impacts of adopting alternatives and further demonstrate that the Bureau has exhaustively examined all reasonable alternatives and mitigation measures and included all feasible ones in the EIS."

  Reclamation - Reclamation believes that all reasonable alternatives and mitigation measures were appropriately addressed in the FEIS. The discussion in the FEIS was expanded to show why other alternatives were not reasonable. Reclamation also believes that discussions subsequent to issuance of the FEIS have not changed the scope of the analysis, the impacts described, or meaningfully changed the mitigation described in the FEIS.

Reclamation has therefore concluded that preparation of a supplemental FEIS is not warranted.

IDEQ and City of Boise Informal Comments

Since issuance of the FEIS, informal discussions and meetings with IDEQ and the City of Boise have focused on Reclamation's water quality impact analysis. These discussions resulted in a slightly modified water quality monitoring plan, developed in cooperation with the IDEQ, than that contained in the FEIS. The modified plan relocates two monitoring sites, adds a monitoring site upstream of the Arrowrock Reservoir pool, and adds monitoring of suspended sediment concentration in the lower Boise River at Eckert Road. These minor modifications to the water quality monitoring plan do not change the analysis nor do they change the water quality impacts identified in the FEIS. Mitigation provided to minimize water quality impacts and the commitment to monitoring as described in the Environmental Commitments section of the FEIS remain essentially the same.

On April 25, 2001, EPA provided Reclamation a spreadsheet analysis done by the City of Boise (see attached electronic mail) estimating the maximum allowable sediment release from Arrowrock Dam that would maintain sediment levels below TMDL targets in the lower Boise River. Reclamation reviewed the analysis and does not concur with the City of Boise's conclusions because the sediment trapping efficiencies used in the analysis are not appropriate for evaluation of conditions with average river flows. The 2/3 and 1/2 sediment trapping efficiencies computed for Lucky Peak Lake in Reclamation's *Arrowrock Reservoir Sediment Quantification and Transport Study Report* (and utilized in the Draft and Final EIS's) are based on 5- and 10-year storm events, rather than the 600 cubic feet per second (cfs) static flow used in the cities analysis. Trapping efficiencies of 2/3 and 1/2 are associated with flows of 4,300 and 6,200 cfs, respectively, and with a sluice gate use duration greater than the 8 to 11 day travel time through Lucky Peak Lake. Therefore, the trapping efficiencies for Lucky Peak Lake and the maximum allowable sediment release from Arrowrock Dam are substantially underestimated in the city's analysis. Exceedances of TMDL targets, with and without sluice gate operations are also

overestimated. A monitoring plan has been proposed to develop a data base to describe the water quality impacts of construction operations.

Reclamation will work with the appropriate regulatory agencies and other stakeholders to develop guidelines for mitigation to offset water quality impacts to the lower Boise River, associated with sluice gate operation should it occur. Monitoring in the lower Boise River will determine the appropriate level of mitigation as identified in the guidelines.

VI. Environmental Commitments in Implementing the Decision

In developing the Preferred Alternative, Reclamation attempted to avoid adverse environmental impacts to the extent feasible. Where these effects could not be avoided, Reclamation developed mitigation measures to further minimize, rectify, reduce, or compensate for adverse impacts. The environmental commitments listed below are the mitigation actions Reclamation will implement as part of the Preferred Alternative:

Water Quality

- Lucky Peak Lake will be held as high as possible throughout the third construction season to maximize settling of suspended sediments.

- Sluice gates will not be used to pass inflows until after 5 days (cumulative) of work site flooding has occurred. This reduces the probability of sluice gate use from 42 percent to 15 percent.

- Water quality will be monitored upstream of Arrowrock Dam, in Lucky Peak Lake, and downstream of Lucky Peak Dam (Eckert Road) prior to, during, and after construction.

- Reclamation will work with the appropriate regulatory agencies and other stakeholders to develop guidelines for mitigation to offset water quality impacts to the lower Boise River associated with sluice gate operation. Monitoring data will be used to identify the appropriate level of off-site water quality mitigation relative to sediment delivery below Boise River Diversion Dam.

- Water quality data collected during sluice gate operations will be used to project potential sediment discharges from Lucky Peak Dam for public information.

- Construction specifications will include measures to prevent discharge of pollutants such as petroleum and construction waste into any reservoir or stream and Reclamation will require contractors to implement these measures.

- Reclamation will obtain a Section 404 Permit from the U.S. Army Corps of Engineers prior to any dredge or fill activity within the waters of the U.S. and would abide by the conditions of any permit. Corresponding State of Idaho permits and/or exemptions would be obtained as required and all conditions will be adhered to.

Fish

- Reclamation will reimburse Idaho Department of Fish and Game (IDFG) for restocking Arrowrock Reservoir with 180,000 rainbow trout fingerlings, 140,000 rainbow catchables and 77,500 kokanee fingerlings the spring and summer following construction.

Vegetation

- Vegetation removal for construction staging and concrete disposal areas will be minimized to the extent practical. Where vegetation is removed, the site will be re-contoured and re-seeded after construction is completed.

Threatened Species (Bull Trout and Bald Eagle)

Reclamation consulted with U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act and received a final Biological Opinion (BO) for the project on March 19, 2001. The following environmental commitments for bull trout and bald eagle respond to USFWS's reasonable and prudent measures and terms and conditions in the Final BO, and USFWS's Final Fish and Wildlife Coordination Act Report.

- Reclamation will take the lead in forming an interagency Arrowrock Valve Replacement Working Group to guide monitoring and mitigation and recommend operational changes during the project.

- In year 3, if deemed necessary by the Working Group, Reclamation will install a weir on the Middle Fork Boise River upstream of Arrowrock Reservoir where bull trout will be trapped and transported to Lucky Peak Lake.

- Bull trout will be recaptured in Lucky Peak Lake after completion of the project and returned to Arrowrock. Reclamation will employ the maximum effort practicable to return bull trout the first year to maximize spawning.

- Bull trout population surveys in Arrowrock Reservoir will be conducted prior to and after construction to determine the project's effects and mitigation efficiency.

- Bull trout movement will be monitored during and after the project using radiotelemetry.

- A water quality monitoring plan, with input from the appropriate agencies, will be in place and operational by September of the first year of construction. Water quality monitoring during construction will help the Work Group in their recommendations for bull trout trapping and transport.

- Reclamation will implement all measures specified in the USFWS 1999 BO on Reclamation's operations; especially reducing bull trout entrainment, and determination and implementation of a minimum pool in Arrowrock Reservoir.

- Reclamation will cooperate with the U.S. Forest Service (USFS) to develop nest site management plans for the two bald eagle nests at Arrowrock Reservoir.

- Reclamation, in cooperation with USFWS, USFS and IDFG will determine the potential need and effectiveness of supplemental winter feeding of bald eagles at Arrowrock Reservoir during construction, and provide supplemental feeding if needed.

Recreation

- Reclamation will notify the public of anticipated operational changes that would impact the recreation season and/or facilities.

- Reclamation is committed to working with Idaho State Parks and Ada County within the limits of its authorities to offset critical economic losses, if any, during the 3-year construction period. Funds through other potential resources may be allocated for additional law enforcement and safety support consistent with conditions and need.

Cultural Resources

- Reclamation in cooperation with the Shoshone-Bannock and Shoshone-Paiute Tribes will conduct a reconnaissance of the drawdown area in the Arrowrock pool to identify potentially significant cultural resource areas. If such areas are found, Reclamation will conduct a subsurface magnetometry or remote sensing survey of the areas. Treatment of burials or any other cultural items that fall under the purview of NAGPRA will be determined through a plan of action to be developed by Reclamation in coordination with the tribes.

- Reclamation will monitor drawdown areas with high resource potential to ensure that collection or vandalism of cultural material does not occur.

- Reclamation's Historic American Engineering Record (HAER) process to document the historic integrity of Arrowrock dam has been completed and serves as mitigation for impacts to the historic integrity of the dam.

- Reclamation will use the HAER data to prepare public interpretive information about Arrowrock Dam and the role of the Boise Project on historic development in southwestern Idaho.

Sacred Sites

- The Shoshone-Paiute and Shoshone-Bannock Tribes have indicated that archeological site 10BO300 is a sacred site, because there are likely to be human burials associated with the location. Therefore, Reclamation, the State Historic Preservation Officer, and Shoshone-Paiute and Shoshone-Bannock Tribes will conduct a reconnaissance of the probable area of the burials to determine if any are exposed. If burial locations are identified (either during the archeological reconnaissance or subsequent monitoring), Reclamation will implement the NAGPRA action plan for inadvertent discoveries that will be developed by Reclamation in coordination with the Shoshone-Paiute and Shoshone-Bannock Tribes.

- In accordance with 36 CFR 800, Executive Order 13007 and Reclamation policy, Reclamation will consult further with the affected Tribes on a government-to-government basis to avoid, minimize, or mitigate effects to potential sacred sites.

Indian Trust Assets

- Although there may be some impacts to the populations of fish, access to hunting and fishing areas will not be affected. However, Reclamation will consult further with the affected Tribes on a government-to-government basis to avoid, minimize, or mitigate effects in accordance with 36 CFR 800, Secretarial Order 3175, and Reclamation policy.

VII. Decision

Based on the factors discussed above, it is my decision that the Snake River Area Office Manager proceed with implementing the Preferred Alternative (Alternative A) as described in the FEIS and this ROD. This alternative best achieves the project objectives and meets the purpose and need of the project in an environmentally sensitive manner. Reclamation will implement the environmental commitments listed in this ROD which will either avoid or minimize adverse impacts associated with the Preferred Alternative.

Approved:

/s/ Kenneth R. Pedde April 30, 2001

Kenneth R. Pedde
Acting Regional Director
Pacific Northwest Region

Date

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Reply To
Attn Of: ECO-088

APR 17 2001

John Tiedeman
Bureau of Reclamation
1150 North Curtis Road
Boise, Idaho 83705-5034

Dear Mr. Tiedeman:

We have reviewed the final Environmental Impact Statement (EIS) for the proposed *Arrowrock Dam Outlet Work Rehabilitation* (CEQ #000369) in accordance with our responsibilities under the National Environmental Policy Act (NEPA) and §309 of the Clean Air Act. The EIS examines the potential effects of the No Action alternative and two construction alternatives for replacing the lower row of Ensign valves with clamshell gates.

We understand that the Ensign valves need to be repaired or replaced to continue to safely operate the dam and control the water levels in the reservoir and therefore agree that there is a strong need for the project. In addition, we are pleased that Alternative A (the preferred alternative) in the final EIS includes a modification from the draft EIS that allows up to five days of flooding in the work area of Arrowrock in Season 3 prior to operating the sluice gates. This reduces the chance of having to use the sluice gates. Nevertheless, after reviewing the water quality section, Appendix C, Appendix D, Appendix K and the Sediment Transport Study, we remain concerned about the effects of the project on water quality because **the final EIS does not clearly state how much the modification would reduce the potential for turbidity**.

The level of disclosure found in the EIS falls short of what is required by the National Environmental Policy Act (NEPA) in two ways. **First, the final EIS lacks a quantitative estimate of suspended solids and instead relies on qualitative statements** like that found on page 3-33 and 3-34. We stated in our January 8, 2001, comment letter on the draft EIS and in our February 2, 2001, telephone conversation with the Bureau of Reclamation (Bureau) that including a quantitative assessment in the EIS would be beneficial because it would better characterize the risk of degrading water quality including the possibility of violating water quality standards and the total maximum daily load for the lower Boise River. We also stated that such analyses is possible as demonstrated by a similar assessment that we performed for the Alaska-Juneau Mine and by the work of the City of Boise in the spread sheet that accompanied its comments (Comment 5-17). Moreover, it appears that the Bureau could do such an analysis, since it did the initial work when estimating sediment capture efficiency in Lucky Peak reservoir. By simply including flow in that analysis, the Bureau would have an estimate of concentrations that could be included in the EIS.

NEPA states that its procedures must ensure that environmental information of high quality is available to public officials and citizens before decisions are made before actions are taken. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA (40 CFR 1500.1(b)). NEPA also states that EISs should provide full and fair discussion of significant environmental impacts (40 CFR 1502.1). Impacts to water quality and fish are the most significant issues

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associated with this project. The risks to water quality posed by this project demand including a quantitative estimate of suspended solids to better inform the public and the decision-maker of the possible impacts to water quality with project implementation.

Second, the Bureau is addressing many major concerns raised by agencies and the public at the tail end of the NEPA process when there is limited opportunity for these parties to comment and help improve the project. We strongly support interagency cooperation, but feel that the lateness of the collaboration largely precludes meaningful public involvement and ultimately, better decision-making. Regulations at 40 CFR 1501.1 state that federal agencies shall emphasize cooperative consultation among agencies before the environmental impact statement is prepared rather than submission of adversary comments on a completed document (see also 40 CFR 1500.5(b) and 40 CFR 1500.2(e)) and that to the fullest extent possible, agencies shall prepare draft EISs concurrently with and integrated with environmental impact and related surveys and studies required by the Endangered Species Act of 1973 and other environmental review laws and executive orders (40 CFR 1502.25(a)).

To correct these deficiencies in the EIS and to ensure compliance with NEPA, we recommend that the Bureau issue a supplemental EIS (see 40 CFR 1502.9(c) for a discussion of when and how lead agencies should issue supplemental EISs). The supplemental EIS should

- include a quantitative assessment of suspended solids (with adoption of mitigation measures) accompanied by a narrative interpretation of the modeling results and an explanation of the limits of the modeling effort,
- update the reader about additional monitoring and mitigation measures that the Bureau has worked out with regulatory agencies such as U.S. Fish and Wildlife, Idaho Fish and Game, and Idaho Department of Environmental Quality that are not included in the draft or final versions of the EIS, and
- describe to a greater extent the environmental impacts of adopting alternatives and further demonstrate that the Bureau exhaustively examined all reasonable alternatives and mitigation measures and included all feasible ones in the EIS.

A summary of our comments will be published in the *Federal Register*. Thank you for the opportunity to review this draft EIS. If you would like to discuss these issues, please contact me at (206) 553-6911 or Chris Gebhardt at (206) 553-0253.

Sincerely,

Judith Leckrone Lee, Manager
Geographic Implementation Unit

Enclosures

cc: R. Finch, City of Boise
J. Esch, USF&WS
S. West, IDEQ